



PCB-tainted oil in free drop off locations

Proper disposal key to keeping sites open & maintaining recycling efforts

Changing the oil in your car, truck or other vehicle is something many people do every day. What to do with the old oil has always been an issue for homeowners and communities – no one wants the oil poured down our drains or sewers, since those flow right into our lakes and streams.

The good news is there are many places Wisconsin residents can take their used oil – in addition to private quick-change oil services, communities have hosted free public drop off spots for many years.

Unfortunately, more and more local officials are finding PCB-tainted oil in tanks at free drop-off locations at a number of communities in Wisconsin and around the country. The tainted oil not only creates costly cleanups for communities and the companies that pick up and recycle the old oil, it wastes thousands of gallons of oil that could have been reused or recycled.

Hoping local governments will not close down these drop-off sites, the Wisconsin Department of Natural Resources (DNR) wants to get the word out on proper disposal of used oil.

PCBS & MANUFACTURING

Polychlorinated biphenyls, or PCBs, were once used in a variety of industrial practices. However, due to their

harmful effects on human health and the environment, these chemicals were banned in the late 1970s. However, old transformers and manufacturing equipment may still contain hydraulic or lubricating oils with traces of PCBs – so even though they are commercially restricted, these chemicals continue to pose a large environmental threat today because they cannot be readily broken down in the environment.

When old transformers and machinery are decommissioned, the oil from that equipment should be tested for PCBs. It is the responsibility of property owners, developers, builders and/or demolition contractors to become aware of any PCBs present in oil at their job sites and take appropriate measures to handle and dispose of oil responsibly.

If there are no PCBs detected and other testing requirements are met, the used oil may be taken to recycle centers that process the oil for reuse or burning for energy recovery.

WHAT HAPPENS IF PCB-TAINTED OIL IS DUMPED AT A RESIDENTIAL DROP-OFF SITE?

The only materials that are accepted at a drop-off site are new or used motor oil and automatic transmission fluid. Il-

There are hefty price tags for communities and businesses if someone dumps PCB-tainted oil at one of these sites. The cost of improper disposal makes for extra work, which includes transporting the contaminated oil to the proper facility, cleaning the contaminated tanks and ultimately incinerating the PCB oil.

legal disposal of PCBs is punishable by fines up to \$25,000 and one year in jail.

In addition, there are hefty price tags for communities and businesses if someone dumps PCB-tainted oil at one of these sites. The cost of improper disposal makes for extra work, which includes transporting the contaminated oil to the proper facility, cleaning the contaminated tanks and ultimately incinerating the PCB oil. Many times the thousands of dollars in cleanup costs are passed on to communities, including those strapped for extra budget funds.

In other instances, PCB-contaminated oil is combined with clean oil in larger tanks as a part of the used oil recycling collection process. If the contaminated oil is not discovered, it may be improperly burned for energy recovery and release toxic substances into the air. If it is discovered, the entire tank would be tainted and have to be disposed of at a special hazardous waste site, wasting oil that could have been recycled or reused.

CASE STUDY – MADISON WI

Within the last year, the city of Madison has had two public waste oil collection tanks contaminated with PCB-containing waste oil. Cleaning the tanks costs the city approximately \$12,000 per cleanup, though officials estimate

the costs in these situations can be many times more if the contamination is not discovered until later. Since the city's public collection tanks are only for Madison residents to dispose of new or used motor oil, the PCB-contaminated oil was illegally dumped in both cases.

"While the city maintains four waste oil tanks as a free public service for our residents, we may be forced to close down the program if our tanks keep getting contaminated by PCB-containing oil," said Brynn Bemis, a hydrogeologist with the city. "Even the smallest quantity of PCB-containing oil generates a costly cleanup for Madison taxpayers."

Bemis said the city is working with the DNR to spread the word about the problem, and is taking steps to stop the dumping. These steps include requiring more checks and testing from private firms who contract with the city to handle non-residential demolition projects.

In addition, the contractor with the city, Safety-Kleen Systems, Inc., has also taken a hit, not just in Madison but at other locations around the state. Safety-Kleen Systems' Wisconsin facilities have been affected by more than a dozen contamination events in the past 6 years.

According to Safety-Kleen representative Kelly Taylor, the company has comprehensive protocols in place for pre-qualification, customer certification and pre-shipment



WHERE ARE PCBs STILL FOUND?

Although no longer commercially produced in the United States, PCBs may be present in products and materials produced before the 1979 PCB ban. Products that may contain PCBs include:

- ❑ transformers and capacitors;
- ❑ other electrical equipment, including voltage regulators, switches, bushings, etc.;
- ❑ oil used in motors and hydraulic systems;
- ❑ old electrical devices or appliances containing PCB capacitors;
- ❑ fluorescent light ballasts;
- ❑ cable insulation and thermal insulation material (including fiberglass, felt, foam, and cork);
- ❑ caulking, adhesives and tapes;
- ❑ oil-based paint;
- ❑ plastics;
- ❑ carbonless copy paper; and
- ❑ floor finish.

testing for all waste generators. Even with these robust procedures, PCB-contamination remains a concern for Safety-Kleen and other companies who collect used oil.

“There is no available field test for discovering regulated levels of PCBs in used oil at the point of collection, so steps are taken to minimize the volume of oil that may be contaminated with PCBs,” said Taylor. “For example, each facility has implemented a guard-tank system where incoming loads are stored in designated tanks.”

In addition, Taylor said that when the tank is full, a representative sample is obtained and analyzed for PCBs before the contents are released for shipment to Safety-Kleen’s oil re-refinery or burned for energy recovery.

If PCBs are detected, Taylor said the facility’s used oil collection program basically shuts down. All equipment that comes into contact with the contaminated oil – including trucks used to collect the oil, all piping, pumps and tanks – must be taken out of service and decontaminated following federally-specified protocols.

The expense of decontaminating tanker trucks and bulk tanks, along with the down time of Safety-Kleen’s used

oil collection program, ends up being a costly proposition for the company. Taylor noted that a single contamination event can cost the company between \$50,000-\$1 million, depending on the volume of oil and amount of equipment contaminated. Those costs include any lost material that could have been re-refined into product lube oil for distribution to the company’s customers.

DNR OFFERS CHECKLIST, ADDITIONAL HELP

For those communities, businesses, property owners and contractors involved in demolition activities, the DNR has developed a demolition checklist that provides handy step-by-step instructions to ensure proper disposal of demolition waste (<http://dnr.wi.gov/files/PDF/pubs/wa/WA651.pdf>). More information is available about how to handle waste during these projects on the DNR’s demolition webpage (<http://dnr.wi.gov/topic/Demo/Structures.html>). The department also has a recycled oil webpage that explains how to properly dispose of used oil, filters and absorbents (<http://dnr.wi.gov/topic/recycling/oil.html>). For more information contact Amy Walden at amy.walden@wisconsin.gov. 